# Amendments to the Claims:

The listing of Claims, as shown in Appendix I attached to this Letter of Response, will replace all prior versions and listings of claims of the present application.

- 1.(Currently Amended): A film comprising at least one layer, the layer comprising an oxygen scavenger composition comprising a condensation polymer and an oxygen scavenging catalytic amount of a transition metal salt, compound or complex, wherein said polymer comprises mer units derived from:
- (A) at least one or a mixture of substituted alicyclic compounds having non-aromatic, ethylenic functionality according to the following representation:

$$C^1$$
 $C^2$ 
 $Z$ 
 $C^4$ 
 $C^4$ 

wherein

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A, B,  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  each independently represents hydrogen or a  $C_qH_{2q+1}$  hydrocarbyl group with q being an integer of from 0 to 20, provided that either A or B and at least one of  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  are hydrogen atoms and each carbon atom of the alicyclic ring is fully substituted by hydrogen, hydrocarbyl, X and/or Y group(s) or mixtures thereof to fill its valence state;

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X and Y each independently represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR group wherein R is hydrogen atom or a C<sub>1</sub>-C<sub>12</sub> alkyl group, or X and Y together represent -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with x being 2, n being an integer in the range from 0 to 20 and D is oxygen atom; and

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Z representing a -(C<sub>1</sub>H<sub>21-2</sub>)- hydrocarbylene group with t being an integer in the range from 1-4;

(B) at least one or a mixture of difunctional hydrocarbon compounds

according to the following representation:

#### G-R'-G

wherein

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R' represents a C<sub>5</sub> or greater hydrocarbon group selected from alkylene, cycloalkylene or arylene group, and each G represents a hydroxyl or an amino group;

from 300 to 15,000 parts per million based on the total of (A), (B), (C) (C) and (D) of at least one or a mixture of polyfunctional hydrocarbon compounds according to the following representation:

### J-R"(-J)<sub>z</sub>

wherein

R" represents a C2.C20 hydrocarbon group selected from alkylene, cycloalkylene, arylene, alkarylene or aralkylene groups or mixtures thereof;

J represents a functional group selected from -OH, -NH<sub>2</sub>, -N=C=O and -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR" group, wherein R" is an -H, or C<sub>1</sub>-C<sub>12</sub> alkyl group, or two J groups together represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with n being an integer of from 0 to 20, D being an oxygen atom and x being 2;

z is an integer of from 2 to 5; and

from 1 to 20 mole percent of the total of (A), (B), (C) and (D) of at (D) 25 least one or a mixture of monomer compounds selected from isophthalic acid, terephthalic acid, tetrahydroisophthalic acid, tetrahydroterephthalic acid, hydrogenated isophthalic acid, hydrogenated terephthalic acid, C<sub>1</sub>-C<sub>12</sub> alkyl esters thereof, anhydride derivatives thereof, and hydrocarbyl derivatives thereof and lower C<sub>1</sub>-C<sub>5</sub> glycol ester derivatives thereof: said X

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and Y of (A), G of (B), J of (C) and functional groups of (D) are in amounts that provide a molar ratio of carboxylic acid, acid ester acid halide and isocyano groups to hydroxyl and amino groups of from 0.9:1 to 1.1:1.

- 2.(Original): The film of claim 1 wherein monomer (A) is selected from cis-1,2,3,6-tetrahydrophthalic anhydride; and dimethyl-1,2,3,6-tetrahydrophthalate.
- 3. (Original): The film of claim 1 wherein monomer (B) is selected from 1,5-pentanediol, 1,6-hexanediol, 1,7-heptanediol, 1,8-octanediol and mixtures thereof.
  - 4. (Original): The film of claim 1 wherein the monomer (C) is selected from benzenepentacarboxylic acid, benzenehexacarboxylic acid, trimellitic anhydride, pyromellitic dianhydride, trimethylolpropane, pentaerythritol and mixtures thereof.
  - 5. (Original): The film of claim 1 wherein monomer (D) is selected from isophthalic acid, terephthalic acid, isophthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, terephthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, bis(2-hydroxyethyl)terephthalate, bis(2-hydroxyethyl)isophthalate, hydrocarbyl substituted derivatives thereof and mixtures thereof.
  - 6.(Withdrawn): A laminated product comprising a plurality of layers, including
  - i) at least one layer, the layer comprising an oxygen scavenger composition comprising a condensation polymer and a transition metal salt, compound or complex, wherein said polymer comprises mer units derived from

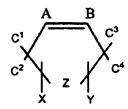
(A) at least one or a mixture of substituted alicyclic compounds having non-aromatic, ethylenic functionality according to the following representation:

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wherein

A, B,  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  each independently represents hydrogen or a  $C_qH_{2q+1}$  hydrocarbyl group with q being an integer of from 0 to 20, provided that either A or B and at least one of  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  are hydrogen atoms and each carbon atom of the alicyclic ring is fully substituted by hydrogen, hydrocarbyl, X and/or Y group(s) or mixtures thereof to fill its valence state;

X and Y each independently represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR group wherein R is hydrogen atom or a C<sub>1</sub>-C<sub>12</sub> alkyl group, or X and Y together represent -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with x being 2, n being an integer in the range from 0 to 20 and D is oxygen atom; and

Z representing a -( $C_tH_{2t-2}$ )- hydrocarbylene group with t being an integer in the range from 1-4;

(B) at least one or a mixture of difunctional hydrocarbon compounds according to the following representation:

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### G-R'-G

wherein

R' represents a C<sub>5</sub> or greater hydrocarbon group selected from alkylene, cycloalkylene or arylene group, and each G represents a hydroxyl or an amino group;

(C) at least one or a mixture of polyfunctional hydrocarbon compounds according to the following representation:

## J-R"(-J)z

wherein

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R" represents a  $C_2.C_{20}$  hydrocarbon group selected from alkylene, cycloalkylene, arylene, alkarylene or aralkylene groups or mixtures thereof;

J represents a functional group selected from -OH, -NH<sub>2</sub>, -N=C=O and -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR''' group, wherein R''' is an -H, or C<sub>1</sub>-C<sub>12</sub> alkyl group, or two J groups together represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with n being an integer of from 0 to 20, D being an oxygen atom and x being 2;

z is an integer of from 2 to 5; and

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(D) at least one or a mixture of monomer compounds selected from isophthalic acid, terephthalic acid, tetrahydroisophthalic acid, tetrahydroterephthalic acid, hydrogenated isophthalic acid, hydrogenated terephthalic acid, C<sub>1</sub>-C<sub>12</sub> alkyl esters thereof, anhydride derivatives thereof, and hydrocarbyl derivatives thereof and lower C<sub>1</sub>-C<sub>5</sub> glycol ester derivatives thereof; and

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- ii) at least one layer comprising a material selected from the group consisting of
  - a) a polymeric article,
  - b) a paper article, and

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c) a metal article.

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- 7. (Withdrawn): The laminated product of claim 6 wherein monomer (A) is selected from cis-1,2,3,6-tetrahydrophthalic anhydride; and dimethyl-1,2,3,6-tetrahydrophthalate.
- 8. (Withdrawn): The laminated product of claim 6 wherein monomer (B) is selected from 1,5-pentanediol, 1,6-hexanediol, 1,7-heptanediol, 1,8-octanediol and mixtures thereof.
- 9.(Withdrawn): The laminated product of claim 6 wherein the monomer (C) is selected from benzenepentacarboxylic acid, benzenehexacarboxylic acid, trimellitic anhydride, pyromellitic dianhydride, trimethylolpropane, pentaerythritol and mixtures thereof.
- 10. (Withdrawn): The laminated product of claim 6 wherein monomer

  (D) is selected from isophthalic acid, terephthalic acid, isophthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, terephthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, bis(2-hydroxyethyl)terephthalate, bis(2-hydroxyethyl)isophthalate, hydrocarbyl substituted derivatives thereof and mixtures thereof.
  - 11. (Withdrawn): The laminated product of claim 6 wherein the polymeric article comprises a bottle.
- 12. (Withdrawn): The laminated product of claim 6 wherein the polymeric article comprises a tray.
  - 13.(Withdrawn): The laminated product of claim 6 wherein the paper article comprises a gable top carton.
- The laminated product of claim 6 wherein the metal

article comprises a can.

15. (Withdrawn): An oxygen scavenger composition comprising a condensation polymer and a transition metal salt, compound or complex, wherein said polymer comprises mer units derived from

(A) at least one or a mixture of substituted alicyclic compounds having non-aromatic, ethylenic functionality according to the following representation:

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$$\begin{array}{c|c}
C^1 & & B \\
C^2 & & Z & C^4
\end{array}$$

wherein

A, B,  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  each independently represents hydrogen or a  $C_qH_{2q+1}$  hydrocarbyl group with q being an integer of from 0 to 20, provided that either A or B and at least one of  $C^1$ ,  $C^2$ ,  $C^3$ ,  $C^4$  are hydrogen atoms and each carbon atom of the alicyclic ring is fully substituted by hydrogen, hydrocarbyl, X and/or Y group(s) or mixtures thereof to fill its valence state;

X and Y each independently represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR group wherein R is hydrogen atom or a C<sub>1</sub>-C<sub>12</sub> alkyl group, or X and Y together represent -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with x being 2, n being an integer in the range from 0 to 20 and D is oxygen atom; and

Z representing a -( $C_tH_{2t-2}$ )- hydrocarbylene group with t being an integer in the range from 1-4;

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(B) at least one or a mixture of difunctional hydrocarbon compounds according to the following representation:

#### G-R'-G

wherein

R' represents a C<sub>5</sub> or greater hydrocarbon group selected from alkylene, cycloalkylene or arylene group, and each G represents a hydroxyl or an amino group;

(C) at least one or a mixture of polyfunctional hydrocarbon compounds according to the following representation:

J-R"(-J)<sub>2</sub>

wherein

R" represents a C<sub>2</sub>-C<sub>20</sub> hydrocarbon group selected from alkylene, cycloalkylene, arylene, alkarylene or aralkylene groups or mixtures thereof;

J represents a functional group selected from -OH, -NH<sub>2</sub>, -N=C=O and -(CH<sub>2</sub>)<sub>n</sub>-C=O)-D with n being an integer in the range from 0 to 20 and D being selected from a halide atom or an OR" group, wherein R" is an -H, or C<sub>1</sub>-C<sub>12</sub> alkyl group, or two J groups together represents -(CH<sub>2</sub>)<sub>n</sub>-C=O)<sub>x</sub>-D with n being an integer of from 0 to 20, D being an oxygen atom and x being 2;

z is an integer of from 2 to 5; and

(D) at least one or a mixture of monomer compounds selected from isophthalic acid, terephthalic acid, tetrahydroisophthalic acid, tetrahydroterephthalic acid, hydrogenated isophthalic acid, hydrogenated terephthalic acid, C<sub>1</sub>-C<sub>12</sub> alkyl esters thereof, anhydride derivatives thereof, and hydrocarbyl derivatives thereof and lower C<sub>1</sub>-C<sub>5</sub> glycol ester derivatives thereof.

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- 16. (Withdrawn): The composition of claim 15 wherein monomer (A) is selected from *cis*-1,2,3,6-tetrahydrophthalic anhydride; and dimethyl-1,2,3,6-tetrahydrophthalate.
- 5 17. (Withdrawn): The composition of claim 15 wherein monomer (B) is selected from 1,5-pentanediol, 1,6-hexanediol, 1,7-heptanediol, 1,8-octanediol and mixtures thereof.
- 18. (Withdrawn): The composition of claim 15 wherein the monomer

  (C) is selected from benzenepentacarboxylic acid, benzenehexacarboxylic acid, trimellitic anhydride, pyromellitic dianhydride, trimethylolpropane, pentaerythritol and mixtures thereof.
- 19. (Withdrawn): The composition of claim 15 wherein monomer (D) is selected from isophthalic acid, terephthalic acid, isophthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, terephthalic acid (C<sub>1</sub>-C<sub>3</sub>) alkyl ester, bis(2-hydroxyethyl) terephthalate, bis(2-hydroxyethyl)isophthalate, hydrocarbyl substituted derivatives thereof and mixtures thereof.
- 20. (Withdrawn): The composition of claim 15 wherein the transition metal is present in from 0.001 to 1 weight percent based on the total weight of the mixture.
- 21. (Withdrawn): The composition of claim 15 wherein the transition metal is present as a salt selected from the group consisting of cobalt neodecanoate, cobalt 2-ethylhexanoate, cobalt oleate, cobalt acetylacetonate, and cobalt 2-ethylbutyrate.
- 22. (Withdrawn): The composition of Claim 15 wherein the composition comprises an effective amount of a photoinitiator.

23. (Withdrawn): The composition of claim 15 wherein the oxygen scavenger composition comprises a diluent polymer selected from the group consisting of ethylene polymer and copolymer, polyester, polyvinyl chloride, polyvinylidene dichloride, polycaprolactone, polyamide, polycarbonate, polyurethane, polyether, polypropylene, polystyrene, and copolymers and mixtures thereof.

## 24. (Withdrawn): The composition of claim 15 wherein

- a) the condensation polymer is derived from monomer (C) in the amount of from 300 to 15,000 parts per million based on the total monomer content used,
- b) the condensation polymer is derived from monomer (D) in the amount of from 2 to 25 molar percent of the total of monomers (A) and (D), and
- c) the molar ratio of carboxylic acid, acid ester, acid halide and isocyanate groups to hydroxyl and amine groups of monomers (A), (B), (C) and (D) is from 0.9 to 1.1.

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